Amendments to the Specification

Please replace the Abstract with the following amended Abstract:

A method of producing an improved straightened reformat is presented in which cross sections are calculated perpendicular to an elongate subject described within an object data set, a reference direction is determined in each cross sectional slice and a new object data set is created by concatenating the cross sectional slices, each cross sectional slice orientated so that the reference directions in the cross sectional slices are aligned. Various methods are presented by which the reference direction is determined within each cross sectional slice, including propagation from an original reference direction and optimization using determined reference directions as boundary conditions.